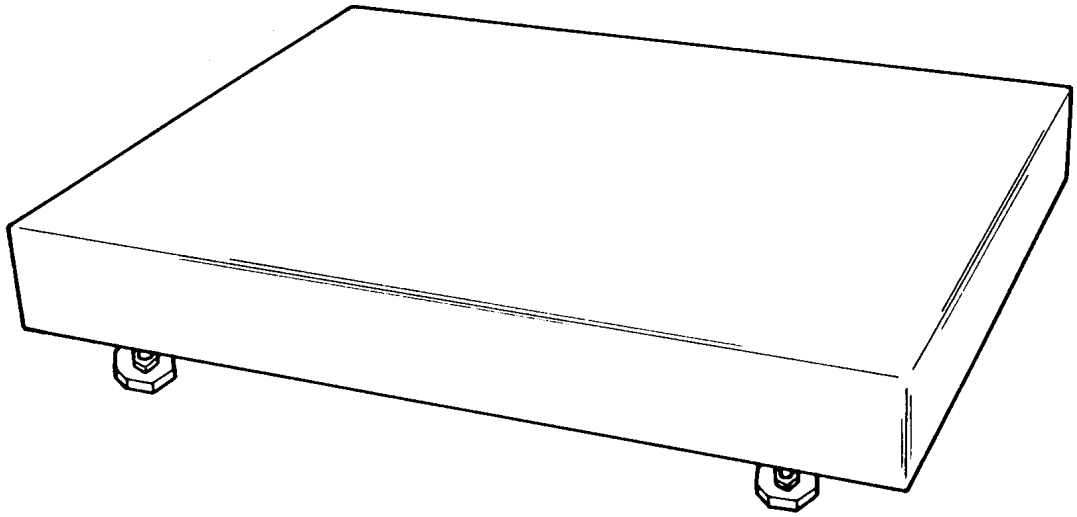
98648-004-76

Sartorius
IS 64 FEG-S0CE

Weighing Platform
Installation and Operating Instructions



sartorius

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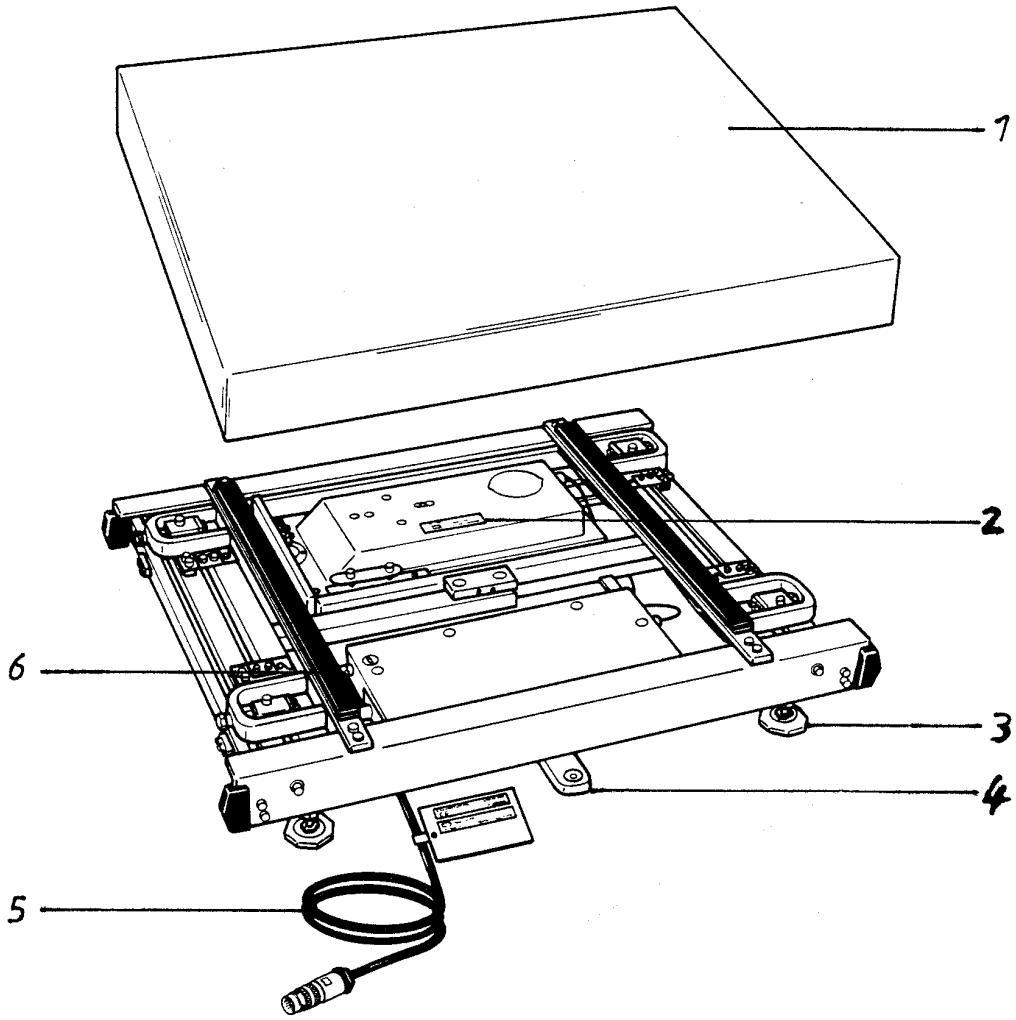
General View of the Weighing Platform



No. Designation

1 Load plate
2 Manufacturer's label for a weighing platform verifiable or verified as a legal measuring instrument
3 Leveling feet
4 Level indicator
5 Connecting cable (interface port/power supply)
6 Blank for power supply cable gland (optional)

With this Sartorius IS weighing platform, you have acquired a high-quality weighing instrument that features advanced technology. As a rule, you will be using this weighing platform as part of a modular weighing System.

Please read through these installation and operating instructions carefully before operating your new weighing platform.

Warranty

Do not miss out on the benefits of our full warranty. Please complete the warranty registration card, indicating the date of installation, and return the card to your Sartorius dealer or office.

Storage and Shipping Conditions

Allowable storage temperature:	-40°C... +70°C
	-40°F ...+158°F
Allowable transport temperature:	-25°C... +60°C
	-13°F ...+140°F

The packaging has been designed to ensure that the weighing platform will not be damaged even it is dropped from a height of 80 cm (approx. 32 inches).

After unpacking the weighing platform, please check it immediately for any visible damage. If you detect any damage, proceed as directed in the section entitled "Safety Inspection."

It is a good idea to save the box and all parts of the packaging until you have successfully installed the weighing platform. If you need to ship the weighing platform for any reason, be sure to unplug all connected cables to prevent damage.

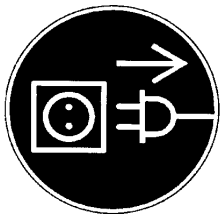
Instructions for Recycling the Packaging

To ensure safe shipment, your weighing platform has been packaged using environmentally friendly materials. After successful installation of the platform, you should return this packaging for recycling.

For information on recycling old weighing equipment, consult your municipal waste disposal center or local recycling depot.

Safety Instructions

Only authorized service technicians trained by Sartorius are allowed to open the weighing cell and A/D Converter enclosures, which are located inside the weighing platform, for repair work according to Sartorius Standard operating procedure.



Before opening the weighing cell or A/D Converter enclosure, make sure to unplug the weighing platform from the power supply!

You are allowed to operate the weighing platform in a Zone 2 hazardous area (in Europe). In this case, you must comply with the national electrical code and applicable safety regulations of your country. To install the power supply, please read the instructions in the section entitled "Separate Power Connection" under "Getting Started."

If you operate the weighing platform in a Zone 2 hazardous area outside the Federal Republic of Germany, you must comply with the national electrical code and applicable safety regulations of your country. For information on the currently valid regulations applicable in your country, please ask your local Sartorius Service technician, office or dealer

The weighing platform may not be operated in Zone 0, 1 or 10 hazardous areas, as it does not have an EX approval certificate for these areas.

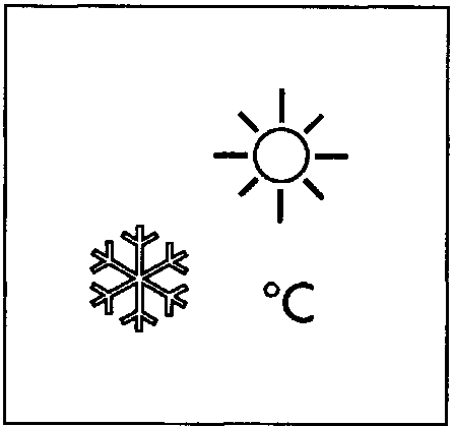
> Any tampering with the weighing platform by anyone, other than installation of preload devices, will result in forfeiture of all claims under the manufacturer's warranty.

The enclosures inside the weighing platform are protected in conformance with DIN VDE0165 so that potentially explosive vapors cannot enter.

The maximum surface temperature of the enclosure is below 80°C at a maximum ambient temperature of 40°C.

Installation Instructions

Sartorius dealers or service technicians, who have received special training, will help you set up the weighing platform and show you how to operate it.



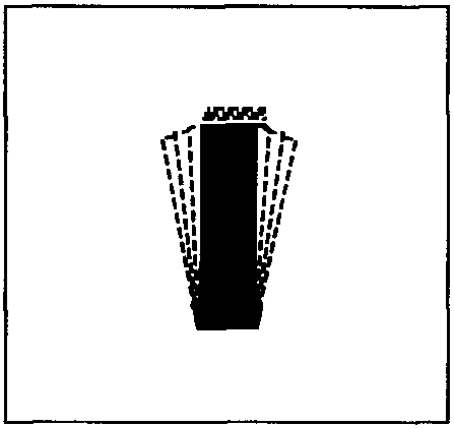
Ambient Conditions

Choose a suitable place to set up the weighing platform. Avoid exposing the weighing platform to the following ambient conditions:

— Extreme heat radiation

— Extreme Vibration

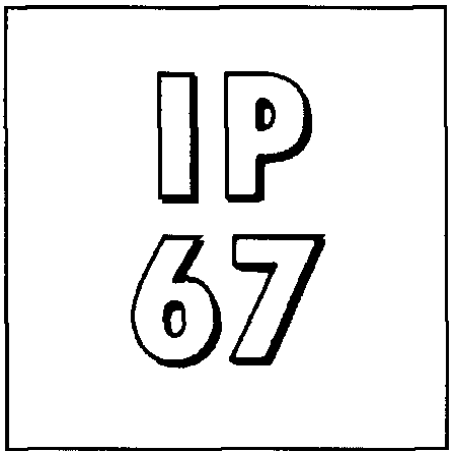
— Places that are difficult to access for cleaning and maintenance



Important Note
If you need to use the weighing platform in areas exposed to heavy traffic (e.g., fork-lift trucks), you should install a protective frame, consisting of angular braces, around the weighing platform. To calculate the dimensions for this protective frame, refer to the section entitled "Dimensions (Scale Drawings)."

Conditioning the Weighing Platform

Do not expose the weighing platform to extreme moisture over long periods. Moisture in the air can condense on the surfaces of a cold platform whenever it is brought to a substantially warmer place. If you transfer the weighing platform to a warmer area, make sure to condition it for about 2 hours at the new ambient temperature, leaving it unplugged from the power supply. Afterwards, if you keep the weighing platform connected to the power supply, the continuous positive difference between the inside of the platform and the outside will practically rule out the effects of moisture condensation.



IP67 Protection

The IP67 protection of the weighing platform is guaranteed only if the platform is in original factory condition. In conformance with the IP67 protection rating, the weighing platform will remain leaktight for 30 minutes if immersed at a depth of 1 meter (approx. 3 ft.).

The IP67 protection of the weighing platform is ensured only under the following conditions:

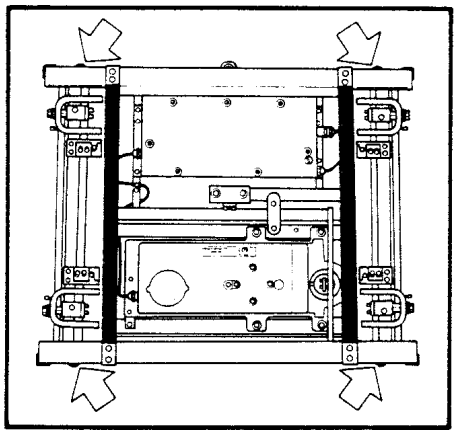
- The weighing platform is maintained in original factory condition
- The rubber seals of the weighing cell and the A/D Converter are not perforated
- All cables are securely fastened in place by cable glands
- The service switch aperture is closed and secured with a cover and a sealing ring
- Both the weighing cell and the A/D Converter enclosures are securely closed

Getting Stared

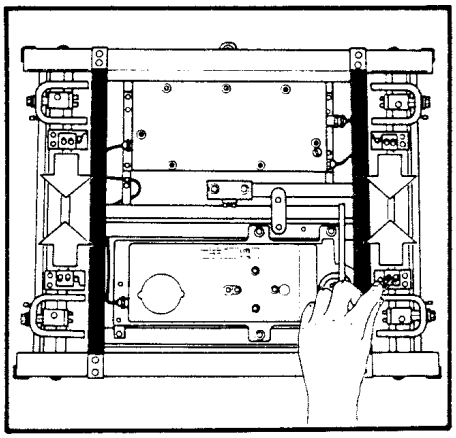
Unpacking the Weighing Platform

— Remove the weighing platform and separate load plate from the packaging
— Remove the plastic bags, packaging strips and foam material

Transport Locking Devices

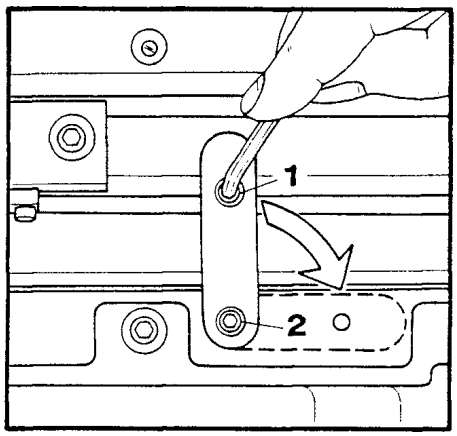


Set up the weighing platform in the vicinity of your work area, remove the load plate (1), and remove the red plastic caps.



Loosen the fastening screws on the retainer plates using the Allen wrench (key) that is supplied with the weighing platform. Slide the retainer plates in the direction of the arrows.

Afterwards, retighten the retainer plates so that they are not in contact with the pins.



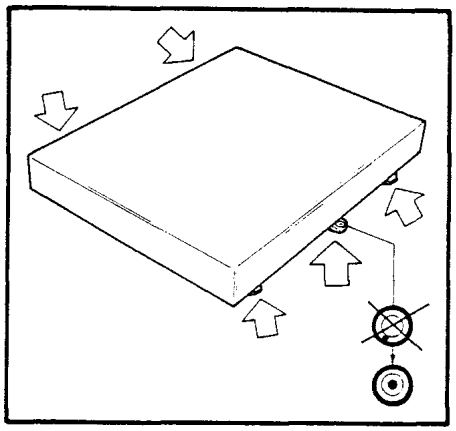
Use the Allen wrench (key) to remove screw no. 1, and loosen screw no. 2. Turn the red color-coded transport locking device by 90° in the direction of the arrow, and refasten the transport locking device.

Important Note

Make sure to retighten all screws that belong to the transport locking devices

Place the load plate on the platform.

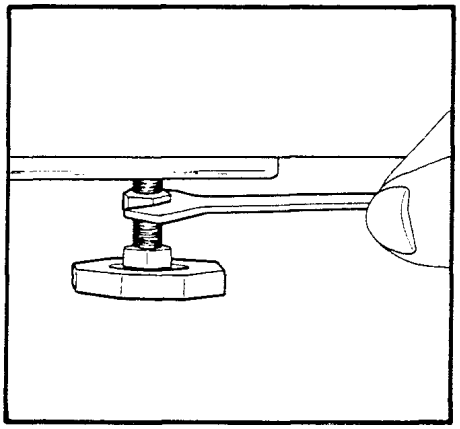
Leveling the Weighing Platform Using the Level Indicator



At the place of Installation, you will need to loosen the locknuts or knurled nuts on the leveling feet using the open-end wrench (Spanner) that is supplied with the scale. Then level the weighing platform using the leveling feet (3) so that the air bubble is centered within the circle of the level indicator (4):

To lift the weighing platform, extend the leveling feet (turn clockwise). To lower the weighing platform, retract the leveling feet (turn counterclockwise).

Check to ensure that the 3 leveling feet touch the surface. The leveling feet must equally support the weight of the platform.



After leveling the weighing platform, retighten the locknuts securely against the platform frame.

Installing the Weighing Platform in a Pit:
The level indicator can be detached. To find out how, contact your local Sartorius dealer or service technician.

Before operating the scale, connect the following cables and completely assemble the components listed below:

- interface cable to a Sartorius *isi* industrial terminal or a Computer with special Software
- separate power cable for power supply via a Sartorius AC adapter (optional)
- components for conveyor Systems

Make absolutely sure to unplug the weighing platform from the power supply

Connecting the Weighing Platform

Please note that the person or Company who connects any non-Sartorius-approved indicating and control devices (e.g., a Computer) or power supplies to the weighing platform shall assume all risks and responsibilities associated with this equipment.

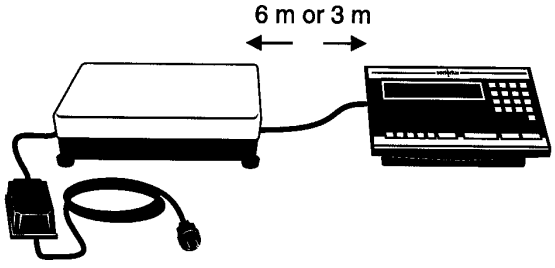
Plug the connecting cable into the connector of a Sartorius *isi* industrial terminal. Afterwards, hand-tighten the locking ring.
The connecting cable is 3 meters long (approx. 10 feet). To order an extension cable or to customize a cable to your requirements, refer to the list of accessories or contact Sartorius.

Cable Lengths:
Since you can choose to power the weighing platform via the interface port of the Sartorius *isi* industrial terminal or a separate power supply unit, there are a few restrictions that apply to the cable lengths between these components.
If you use a cable that is longer than 12 meters (~ 40 feet) between the weighing platform and the Sartorius *isi* industrial terminal, each of these components must be energized by a separate AC adapter.

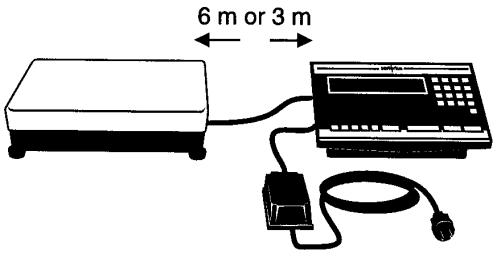
Separate Power Connection (Optional) for the Weighing Platform Have your local Sartorius dealer or service technician connect the weighing platform separately to line current (mains supply). This separate power connection is required when you use cables that are longer than 12 meters or if you interface the weighing platform directly with a Computer.

The diagrams on the next page show the options for powering weighing platforms and industrial terminals:

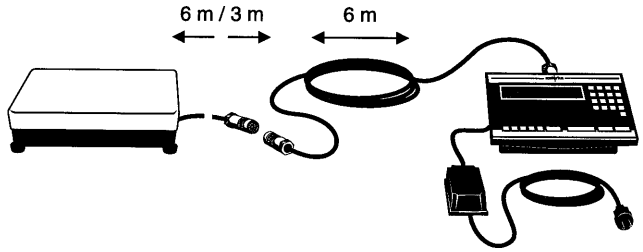
Cables for connecting the industrial-grade AC adapter, ING2, to the "IS" weighing platform without an extension cord (using the YD0501S (3m) or YD0531S (6m) data output port):



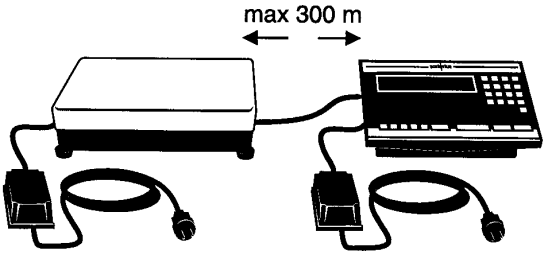
Cables for connecting the industrial-grade AC adapter, ING2, to the *isi* industrial terminal without an extension cord (using the YD0501S (3 m) or YD0531S (6 m) data output port):



The industrial-grade AC adapter, ING2, can be connected only to the *isi* industrial terminal with an extension cord at a maximum length of 12 m (~ 40 ft):



If both the *isi* terminal and the IS weighing platform are powered by separate industrial-grade ING2 AC adapters, the interface cable for data transmission via the RS 485 port can be up to
300 m (984 ft) long:



The weighing platform is energized by an external industrial-grade AC adapter. Make sure that the voltage rating printed on this unit is identical to your local line voltage. If the voltage specified on the label or the plug design does not match the rating or Standard you use, please contact your local Sartorius dealer or office. To use a main feeder cable from the ceiling or to mount a CEE plug, you will have to make arrangements inside your facilities for installation of such cable equipment.
Use only original Sartorius AC adapters/power supplies identified by the Sartorius label. Use of AC adapters/power supplies from other manufacturers, even if these units have an approval identification marking from a national testing laboratory, requires the consent of an authorized Sartorius service technician.

For detailed Information on further options for powering the weighing platform (e.g., using local low voltage), contact Sartorius AG headquarters in Germany or one of the main offices based in your country.

Hook up the weighing platform to the power supply in conformance with the Installation requirements of your country.

Safety Precautions
The Sartorius power supply rated to Industrial Class 2 can be plugged into any electrical outlet without requiring any additional safety precautions. The ground or earth terminal is connected to the platform housing, which can be additionally grounded/earthed, if required.

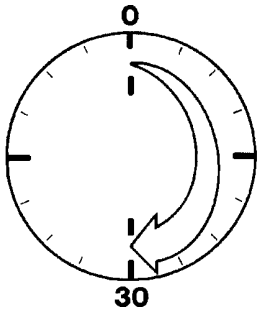
Install the power cable for connection to an *isi* industrial terminal or a Computer with adequate protection so that the cable cannot get damaged.

Fixed Power Connection:
If the power cable is permanently installed or secured so that it cannot be unplugged, the weighing platform must be able to be switched off by a suitable emergency switch. This emergency switch must be installed near the weighing platform and be within easy reach. In addition, this switch must be labeled as an emergency switch. All operators must be shown how to operate this switch.

Installing the Weighing Platform in Zone 2 Hazardous Areas:

If you need to install the platform in Zone 2 hazardous areas, make sure to comply with the applicable requirements. In Germany, these requirements are Elex V and VDE 0165 which stipulate the following:
If a fixed mains socket outlet (electrical outlet) is used to connect the AC adapter or power supply to line power, this connection must be securely locked in place so that the plug cannot be inserted or disconnected when the power is on. Alternatively, you must use an explosion-protected outlet/plug.

Whenever possible, avoid wiring your weighing platform into networks that carry a heavy load (for instance, a compressor or similar equipment).



Warm-up Time

The weighing platform will need to warm up for at least 30 minutes after initial connection to the power supply (or after a relatively long period without power connection).

Preparing the Weighing Platform for Verification as a Legal Measuring Instrument in the EU*:

After initially connecting the weighing platform to the power supply (or after a relatively long power outage), allow the platform to warm up for at least 24 hours. The menu access switch must be unlocked and the correct configuration selected by menu code (for specifications group).

* = including the Signatories of the Agreement on the European Economic Area

Operating Limits

Maximum Overload Capacity

Sartorius weighing platforms are built so that occasionally loading them beyond their maximum weighing capacity will not damage them in any way.

The maximum overload capacity of this IS model is 130 kg.

Shock Resistance

Even though Sartorius weighing platforms feature a highly rugged construction, there are some limits. Avoid dropping heavy objects from a considerable height on the weighing platform and do not expose it to strong side impact. Sartorius weighing platforms withstand shock according to the shock response spectrum defined in the IEC68 Standard.

General Instructions for Integration into Conveyor Systems

The IS weighing platform is suitable for installation in conveyor Systems. Follow the general instructions given below and refer to the "Dimensions (Scale Drawings)" to meet the requirements for such installation.

Any moving or rotating parts intended to be permanently attached to the load plate must be designed so that they cannot affect the weighing results. For example, rotating mechanisms must be properly balanced.

Before attaching the "preload" parts to the weighing platform, you must ensure that the "preload" weight can be set (see the "Specifications Chart"). In addition, take care that the fittings do not collide with parts of the scale platform mechanism under the toad plate. Make sure to remove the load plate from the platform before drilling.

Any cables or tubing between the weighing platform and other equipment must not apply any force to the weighing platform. Make sure that cables do not touch the load plate.

If you install the weighing platform in conveyor Systems in Zone 2 hazardous areas, you must comply with the applicable safety regulations (e.g., in Germany with VDE0165). Special precautions must be taken to prevent the build-up of static electricity caused by moving parts (e.g., roller conveyors).

Preload Range (Zero-Setting Range)

The weight of components that are securely installed on the weighing platform is called "preload." The weighing platform electrically compensates for this preload so that the entire weighing range is available and so that it is possible to zero and adjust (calibrate using external weights) the platform. Higher preloads may result in a reduction in the maximum weighing capacity.
The maximum preload that can be compensated for depends on the specifications configured (see the "Specifications Chart").

Note to Users in the EU': Always be sure to set the preload before verification for use in legal metrology.

The components for Integration into a conveyor must already be installed on the weighing platform before you connect the platform to the power supply.

* = including the Signatories of the Agreement on the European Economic Area

Configuring the Weighing Platform

You can adapt the weighing platform to meet your specific requirements e.g., metrological specifications, for weighing in international weight unite and to perform optimally under various ambient conditions as well as process weighing data. For this reason, final configuration of your Sartorius Modular Technology equipment is possible only at your dealers or your particular facilities.

To adapt your weighing platform (weihing modul), access the configuration menu of the connected indicating an terminal or a computer with a special Sartorius configuration program (see the "Accessories") .

Options for Defining the Weighing Range Structure

SuperRange

This weighing range features exceptionally high resolution; i.e., the weighing range is subdivided into more than 64,000 digits. There is one level of readability for the entire weighing range (e.g., 1 g).

SingleRange

The weighing range is subdivided into 64,000 intervals (digits) maximum. There is one level of readability for the entire weighing range (e.g., 10 g).

Multi-interval

Weighing ranges with multiple levels of accuracy

The Multi-interval function divides the weighing range into 3 ranges, for instance, each with a different readability.
In the various ranges, the readability automatically adjusts when the weight on the load plate changes (seethe "Specifications Chart" for the particular readability of each range).
After you have pressed the tare key, you will obtain the highest possible resolution, even when an object is on the load plate of the weighing platform.

You will find the configuration options for your weighing platform in the "Specifications Chart" on the next page.

Specifications Chart

Access the configuration menu of the connected suited Sartorius terminal to set the code for the group of specifications of your choice. You must set one of the appropriate codes before verification of the platform as a legal measuring instrument. Please note that when you change the configuration, this may also change the accuracy class and the preload range besides the weighing capacity and the readability.
Then select the appropriate ID label and affix it to the weighing platform.
For directions, refer to the section entitled "Selecting and Affixing the Respective ID Label."

IS FEG-S0CE: (Type HA BD)

Weighing range structure	SuperRange (High-Resolution)				Multi-Interval	SingleRange			
Weighing range	Standard		Configurable		Standard	Configurable			
Maximum capacity,	64	51	31	16	64	64	64	31	16
Max kg									
Scale interval g	1	1	1	1	0 … 15kg 5	10	20	10	5
(readability)					15 … 30kg 10				
					30 … 64kg 20				
Zero tracking ± 2% kg	± 1.28	± 1.02	± 0.62	± 0.32	± 1.28	± 1.28	± 1.28	± 0.62	± 0.32
Initial zero-setting	± 1.3	± 1.3	± 1.3	± 1.3	± 1.3	± 1.3	± 1.3	± 1.3	± 1.3
range kg									
Preload [1]) kg	0	13	33	48	0	0	0	33	48
ISO test function [2])	yes	yes	yes	yes	yes	yes	yes	yes	yes
Metrological specifications:									
Accuracy class			–	–					
Minimum capacity, Min,	(II)	(II)	–	–	(III)	(III)	(III)	(III)	(III)
acc. to CD [3]) g	50	50			100	200	400	200	
Verification scale	10	10	–	–	5/10/20	10	20	10	5
interval g									
Temperature range °C	0 … + 40		–	–		0 … + 40			
Select particular group of	Sp.grp.1*	Sp.grp.2	Sp.grp.3	Sp.grp.4	Sp.grp.5	Sp.grp.6	Sp.grp.7	Sp.grp.8	Sp.grp.9
specifications (use code)	(10 3 1)	(10 3 2)	(10 3 3)	(10 3 4)	(10 3 5)	(10 3 6)	(10 3 7)	(10 3 8)	(10 3 9)

* = factory setting

[1]) No reduction in the maximum capacity up to this preload / higher preloads reduce the maximum capacity in 1-kg steps (you cannot set a preload > 49 kg)

[2]) The ISO lest function cannot be selected for preloads S 32 kg

*) CD = Council Directive 2009/23/EC on non-automatic weighing instruments used in the EU and the Signatories of the Agreement on the European Economic Area

4) Not allowed for use as a legal measuring instrument (legal for trade)

A 50-kg calibration weight is required for external adjustment

General Technical Specifications

(for use Standard Applications Not Subject to Legal Metrology)

Model		IS 64 FEG-S
Readability	g	1
Reproducibility (standard deviation)	g	≤± 0.5
Linearity		≤± 2.0
Response time (average)	s	≤± 1
Fastest response time (IQ)	s	≤± 0.8
Adaption to ambient conditions and application requirements		By selection of 1 of 4 optimized filter levels
Data output speed (depends on the filter level selected)	s ms	0.1 – 0.2 – 0.4 (normal data output speed) 20 – 40 – 80 (fast data output speed)
Dust and water protection rating acc. to DIN 40050/IEC 529		IP 67
Net weight, approx.	kg	15
Requirements for power connection (optional)	V	Via AC adapter, ING2: 230 V or 115 V (to be connected by your dealer or Sartorius service technician only)
Frequency	Hz	48 – 63
Power consumption, with *isi* 10, 20 30 connected to ING2; platform connected only to ING2	VA, approx. VA	34: maximum; 18: average 11: average
Selectable weights units		g, kg*, ct, oz, ozt, tlh, tls, tlt, GN, dwt, mg, /lb, tlc, mom, K, tol, bat, MS, tons * = the weight unit "kg" can only be selected for use in legal metrology (e.g., legal-for-trade applications)
Automatic zero tracking, can be turned off by menu code		Standard future
Built-in interface		PS-485 via round connector (XBPI transmission protocol): 8-bit; odd parity; transmission rates: 96,00-34,000; half-duplex - convertible to RS-232 (SBI protocol): 7-bit; parity: even, mark, odd, space; transmission rates: 150 ... 19,200 baud; 1 or 2 stop bits; Software/Hardware Handshake; factory setting: 1,200 baud; odd parity; 1 stop bit; Hardware handshake with 2 characters after CTS
Ambient operating temperature range	°C	0 … +40

EC type-approval certificate

Number **T7899** revision 0
Project number 10200901

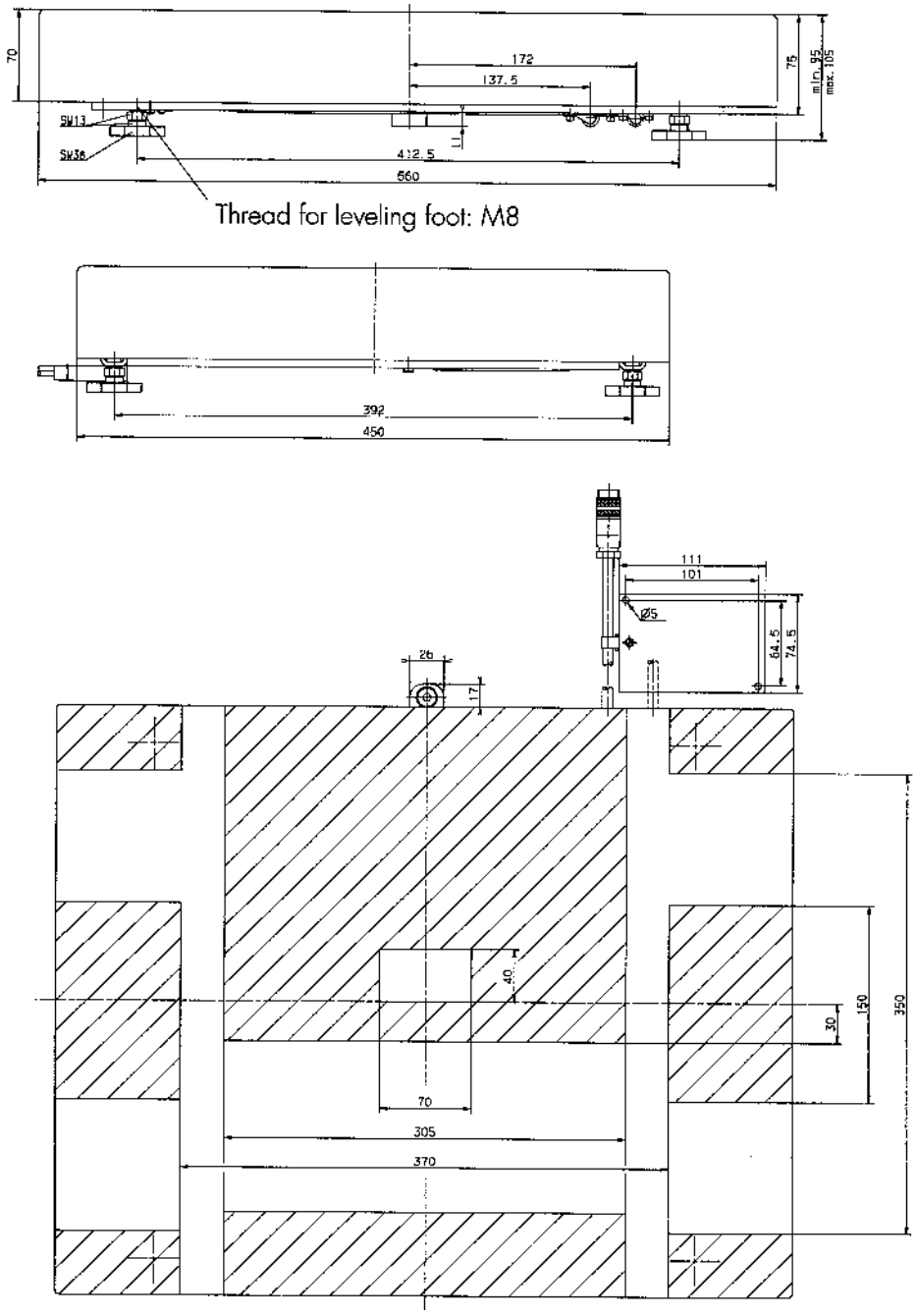
Issued by	NMi Certin B.V. Hugo de Grootplein 1 3314 EG Dordrecht The Netherlands
In accordance with	The Council Directive 2009/23/EC on non-automatic weighing instruments.
Manufacturer	Sartorius AG Weender Landstrasse 94 - 108 37075 Goettingen Germany
In respect of	A class (I), (II) or (III), electronic, **non-automatic weighing instrument.** Manufacturer mark/name: Sartorius Type : SARTOCOWAT
Characteristics	n ≤ the number of verification scale intervals mentioned in the test certificates of the weighing modules. In the description number T7899 revision 0 further characteristics are described.
Valid until	29 March 2021
Description and documentation	The instrument is described in the description number T7899 revision 0 and documented in the test certificates involved.

The Notified Body no. 0122
NMi Certin, 29 March 2011

C. Oosterman
Head Certification Board

Dimensions (Scale Drawings)

IS 64 FEG-S0CE

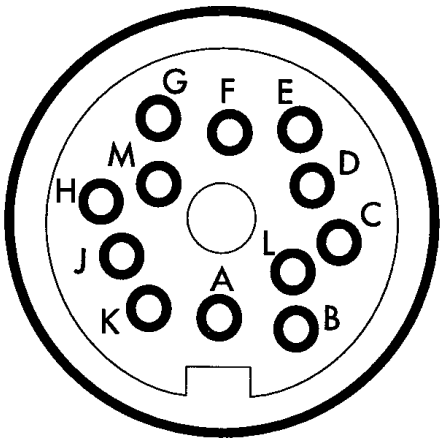


Area for attaching conveyor components; fasteners may protrude below by 10 mm max.

All dimensions are given in millimeters

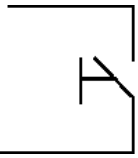
Pin Assignment

RS-485,3-m Cable
Male Connector:
Type C091 D, 1 2-pin round connector with threaded locking ring, Amphenol (IP67)



Pin Assignment

A	RxD-TxD-N
B	Not Connected
C	Not Connected
D	Not Connected
E	Signal GND
F	Menu Access Switch for Calibration/ Adjustment (routed externally)
G	VCC (24-V Power Supply)
H	Not Connected
J	GND (24-V Power Supply:
K	GND (24-V Power Supply:
L	RxD-TxD-P
M	VCC (24-V Power Supply)



Interface Connector (Recommended):
TvpeC091D, 12-pin Amphenol(IP67)

Type of cable: AWG 24 specification

Be sure to follow the instructions given for connecting the weighing platform to the power supply

Troubleshooting Guide

(For Problems That You Can Fix Yourself

Problem	Possible Causes	Solution
No segments appear on the display	- No line current is available - The AC adapter is not plugged in	- Check the power supply - Plug the AC adapter into the platform and into an electrical outlet
standby mode for more than	- The weighing platform has been in terminal using the 5 minutes	- Turn on the *isi* industrial the on/off switch
The weight display shows "H"	- The load exceeds the capacity of the weighing platform	- Unload the weighing platform
The weight display shows "L" or "Err 54"	- The load plate is not on the weighing platform	- Place the load plate on the platform
The weight display briefly indicates "Err 01"	- The weight unit selected requires more decimal places than are available in the display	- Wrong setting in the "Devices" setup menu of the *isi* industrial terminal
The weight display briefly indicates "Err 02"	- One of the requirements for calibration/adjustment has not been met (e.g., the weighing platform is still loaded)	- For example, re-adjust (recalibrate) the weighing platform only when a zero readout is displayed on the terminal - Zero the weighing platform - Unload the weighing platform
The weight display briefly indicates "Err 03"	- Calibration/adjustment was unable to be completed within a specific time	- Allow the equipment to warm up and re-adjust/recalibrate
The error code "Err 07" is displayed	- The last function you-activated is not allowed for weighing platforms used as legal measuring instruments (legal-for-trade)	- To change the menu codes, contact your local dealer or Service technician
The error code "Err 08" is displayed	- The load on the weighing platform is too heavy for the platform to be zeroed	- Check the initial zero-setting range for the configuration code you have selected on the "Specifications Chart" to determine whether this range is correct
The error code "Err 09" is displayed	- The gross weight value < zero and the weighing platform is unloaded, but you can not tare	- zero the weighing platform

Problem	Possible Causes	Solution
The error code "Err 10" is displayed	- No values are stored in the tare memories for your application, and you tried to clear the lower-level tare memory	- Clear the tare memories for your application first, then clear the clear the lower-level tare memory
The error code "Err 12" is displayed	- You tried to store a value in the tare memory for applications, although this memory has been blocked by menu code 2 2 x	- Check the configuration
	- You entered a numeric tare that is not allowed	
The error code "Err 17" is displayed	- Internal calibration is not possible because the preload setting is too high	- Reduce the preload or select a different configuration code
The error code "Err 19" is displayed	- The remaining weighing capacity available is too low because the relatively high preload setting has reduced the maximum capacity	- Reduce the preload or select a different configuration code
The special code "◇" remains displayed	- None of the keys has been pressed since the weighing platform was switched on	- Press any key
The weight readout changes constantly	- instable environment (ambient conditions; e.g., too much Vibration or exposure to excessive drafts)	- Set up the weighing platform in a different area - Access the "Devices" setup menu to adapt the weighing platform to the particular environment
	- A foreign object is caught between the load plate and the platform frame	- Remove the foreign object
The readout of the weighing result is obviously wrong	- The weighing platform was not adjusted/calibrated before weighing	- Adjust/calibrate the weighing platform
	- The weighing platform is tilted	- Level the weighing platform as described in the instructions

If any other errors occur, please contact your nearest Sartorius service center or your dealer

Care and Maintenance

Servicing

Regular servicing by a Sartorius technician will extend the service life of your weighing platform and ensure its continued weighing accuracy. Sartorius can offer you service contracts, with your choice of regular maintenance intervals ranging from 1 month to 2 years.

Cleaning

Before cleaning the weighing platform, unplug it from the power supply (disconnect the AC adapter).

To clean the weighing platform when it has been exposed to dry ambient conditions:
- Use a piece of cloth wet with a commercially available cleaning agent to wipe down the weighing platform

To clean the weighing platform when it' has been in a wet environment:
- Use a commercially available cleaning agent and a gentle, low-pressure jet of water to hose down the platform after-wards

The weighing platform, which has been tested according to EN 60529 and found to comply with the IP67 protection Standard, will remain leaktight for a maximum of 30 minutes if immersed at a maximum depth of 1 meter (approx. 3 ft.).

However, pressurized water (e.g., strong jets of water using a hose or high-pressure cleaning equipment) is not allowed to clean the IP67-protected weighing platform.

> Never use concentrated acids, bases, solvents or pure alcohol to clean the weighing platform!

To clean the weighing platform exposed to a corrosive environment:
- Regularly remove all traces of corrosive substances from the platform
- Follow the manufacturer's directions provided for the particular disinfectants and cleaning agents you use to clean the weighing platform

Important Note:
If the water that you use to clean the weighing platform is too hot or cold, the difference in temperature between the water and the platform can cause condensation within the platform (according to EN 60529 on IP67 protection). This condensation may cause the weighing platform to malfunction.

Safely Inspection

lf there is any indication that safe Operation of the weighing platform is no longer warranted, turn off the power and disconnect it from the power supply immediately. Lock the equipment in a secure place to ensure that it cannot be used for the time being.

Safe Operation of the weighing platform with the power supply is no longer ensured when
- there is visible damage to the power supply
- the power supply no longer functions properly
- the power supply has been stored for a relatively long period under adverse conditions

In this case, notify your nearest Sartorius Service Center or the International Technical Support Unit based in Goettingen, Germany. Only service technicians who are authorized by Sartorius and who have access to the required service manuals are allowed to perform maintenance and repair work on the equipment.

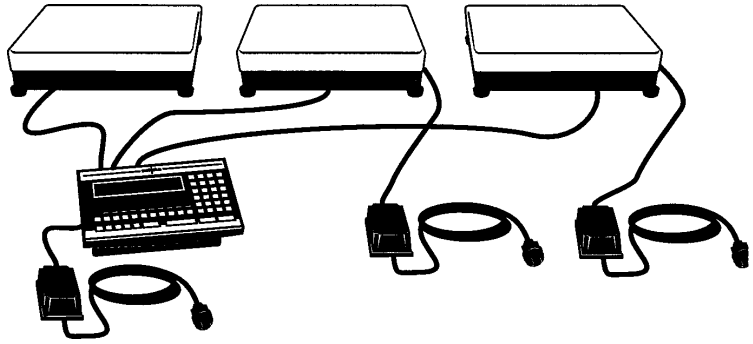
Use of the Weighing Platform as a Legal Measuring Instrument in the EU*

Components of a Legal Weighing Instrument

Your weighing platform is considered a modular device. Only when this device is connected to a suitable Sartorius indicating and operator terminal and has been verified in this configuration (a different configuration can be specified for initial verification) does it constitute an approved legal weighing instrument.

Therefore, a legal weighing instrument can consist of the following:

- a Sartorius *isi* industrial terminal + 1 to 3 weighing platforms



or

- a Sartorius *isi* industrial terminal + 1 weighing platform +up to 2 further EC- or nationally type-approved weighing instruments.

As a weighing instrument, the weighing platform is not allowed to be used for weighing goods intended for direct sale to the public. Since the platform's type approval certificate for verification applies to non-automatic weighing instruments only, you must comply with your country's national regulations that apply to the place of installation of your weighing Instrument for automatic Operation with or without supplementary devices installed.

* including the Signatories of the Agreement on the European Economic Area

Effect of the Preload on the Acceptability for Verification in the EU*

Only internal adjustment (calibration) is allowed for weighing instruments verified as legal measuring instruments (refer to the operating instructions for the particular 15) industrial terminal you are using). Therefore, if you use your weighing platform in a configuration for which you cannot use the ISO test on account of the relatively high preload, the platform is not acceptable for verification.
To have your weighing platform verified, you must change the preload setting before verification only.

The legal basis permitting Sartorius to perform initial verification is constituted by the following: 1) EC Council Directive no. 2009/23/EC on non-automatic weighing instruments, which has been applicable within the harmonized Infernal Market of the European Union since 1 January 1993; and 2) the certificate issued by the Metrology Department "Eichwesen" of the Landesverwaltungsamt of Lower Saxony in Germany
(now MEN, Mess- und Eichwesen Niedersachsen).

Following verification, the representative authorized to perform this procedure will affix the respective ID labels and metrology sticker.

* including the Signatories of the Agreement on the European Economic Area

Approved Auxiliary Measuring Devices

When using the weighing platform as a legal measuring Instrument in the EU, you may connect to it only auxiliary measuring devices that have been approved for legal metrology.

> Approved auxiliary measuring devices are identified by the verification ID marks and metrology stickers affixed to them by a representative authorized to perform verification.

- Electromechanical weighing Instruments verified for legal metrology
- Hand or foot switches for activing the tare function and/or print function
- T-connector — Model 7258, Sartorius
- Interface Converters — Model series 7253, YCC 01-and YCO…, Sartorius
- Digital remote displays — Models 737101A and 737102A, Sartorius
- Printers — Models YDP02-OD, YDP02-OCE, Sartorius
- Industrial terminals of the *isi* Series, used as display and control devices
- Checkweighing display with color-coded indicators — Model YRD 10Z, Sartorius
  (does not display weights or other measured values)
- Bar code Scanners
- Other printers and/or auxiliary measuring devices that are stated on an EC Type-Approval Certificate for a Sartorius non-automatic weighing Instrument, or other printers and devices whose suitability for connection to weighing instruments is confirmed by independently issued certificates or reports provided by a Notified Body in the EU and the Signatories of the Agreement on the European Economic Area.

For applications not subject to the regulations of legal metrology, any type of auxiliary device can be connected to the weighing platform:

- D/A Converter — Model YDA01 Z, Sartorius
- Additional printer, bar code Scanner, remote display, modern, PC, device for data transfer to a central Computer, or a similar device

Information Concerning the EC Machinery Directive

Sartorius balances, scales and weighing platforms are not machines in the sense of the EC Machinery Directive; however, as individual Instruments they meet the safety requirements of this Directive.

If Sartorius balances, scales and weighing platforms are installed in conveyor Systems, supplemented by auxiliary devices or equipment or otherwise modified, responsibility for compliance with the EC Machinery Directive and other safety requirements shall rest with the person who is responsible for the conveyor system, equipment added and/or modification.

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

PTB

EG-Bauartzulassung

EC type-approval certificate

Zulassungsinhaber: *Issued to:*	Sartorius AG Weender Landstr. 94-108 37075 Göttingen
Rechtsbezug: *In accordance with:*	§ 13 des Gesetzes über das Mess- und Eichwesen *(verification act)* vom*/dated* 23. März 1992 (BGBl. I S. 711), zuletzt geändert am *(last amended on)* 02.02.2007 (BGBl. I S. 58), in Verbindung mit Richtlinie *(in connection with council directive)* 90/384/EWG, geändert durch *(amended by)* 93/68/EWG
Bauart: *In respect of:*	Nichtselbsttätige elektromechanische Waage mit oder ohne Hebelwerk *Nonautomatic electromechanical weighing instrument with or without leverwork*
Typ / *Type*:	iso-TEST
	Genauigkeitsklasse/*class* (I), (II), (III), (IIII) Max 2,1 g ... 300 t Option: Mehrteilungswaage, Mehrbereichswaage *Multi-interval instrument, multiple range instrument*
Zulassungsnummer: *Approval number:*	**D97-09-018 7. Revision**
Gültig bis: *Valid until:*	26.06.2017
Anzahl der Seiten: *Number of pages:*	18
Geschäftszeichen: *Reference No.:*	PTB-1.12-4030179
Benannte Stelle: *Notified Body:*	0102

Im Auftrag
By order

Marcus Link

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 40

Braunschweig, 29.06.2007

Siegel
Seal

Die Hauptmerkmale, Zulassungsbedingungen und Auflagen sind in der Anlage enthalten, die Bestandteil der Revision der EG-Bauartzulassung ist. Hinweise und eine Rechtsbehelfsbelehrung befinden sich auf der ersten Seite der Anlage

The principal characteristics, approval conditions and special conditions, if any, are set out in the Annex which forms an integral part of this Revision of the EC type-approval certificate. For notes and information on legal remedies, see first page of the Annex.

R3-0023

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

Prüfschein

Test certificate

Ausgestellt für: *Issued to:*	Sartorius AG Weender Landstraße 94 – 108 37075 Göttingen Bundesrepublik Deutschland
Prüfgrundlage: *In accordance with:*	EN 45501 (1992), Nr. 8.1, WELMEC-Dokument 2.1 (Issue 2, 1998) EWG Richtlinie 90/384/EWG, OIML R 76-1 (1992)
Gegenstand: *Object:*	Lastaufnehmer mit Wägezelle und Auswerteelektronik mit digitalem Ausgang als Modul einer elektromechanischen Waage zum Anschluß an geeignete Anzeige- und Bedienterminals *Load receptor with load cell and electronic device with digital output as module of an electromechanical weighing instrument for connection to suitable display- and operator-terminals* Typ / *type* **HA BD**
Kennummer: *Serial number:*	---
Prüfscheinnummer: *Test certificate number:*	D09-95.18 1. Revision / *Revision 1*
Datum der Prüfung: *Date of Test:*	---
Anzahl der Seiten: *Number of pages:*	7
Geschäftszeichen: *Reference No.:*	1.14 – 01035016
Benannte Stelle: *Notified Body:*	0102

Im Auftrag
By order

Link

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 40

Braunschweig, 2001-05-21

Siegel
Seal

392 00 e-rb

Hinweise siehe erste Seite der Anlage, die Bestandteil des Prüfscheines ist.
For notes, see first page of the Annex which forms an integral part of the test certificate.

Declarations of Conformity

The CE Mark on Sartorius Equipment

In 1985, the Council of the European Community approved a resolution concerning a new approach to the technical harmonization and standardization of national regulations. The organization for monitoring compliance with the directives and Standards concerning CE marking is governed in the individual EU Member States through the implementation of the EC Directives adopted by the respective national laws. As of December 1993, the scope of validity for all EC Directives has been extended to the Member States of the European Union and the Signatories of the Agreement on the European Economic Area.

Sartorius complies with the EC Directives and European Standards in order to supply its customers with weighing instruments that feature the latest advanced technology and provide many years of trouble-free service.

The CE mark may be affixed only to weighing instruments and associated equipment that comply with the applicable Directive(s):

Council Directive 89/336/EEC "Electromagnetic Compatibility (EMC)"

This Directive regulates the use of equipment that can cause electromagnetic interference or whose functioning can be influenced by such interference.

Applicable European Standards:

Limitation: of emissions	EN 50081-1	Residential commercial and light industry
	EN 50081-2	Industrial environment
Defined immunity to interference	EN 50082-1	Residential, commercial and light industry
	EN 50082-2	Industrial environment

Important Note:
The operator shall be responsible for any modifications to Sartorius equipment and for any connections of cables or equipment not supplied by Sartorius and must check and, if necessary, correct these modifications and connections. On request, Sartorius will provide information on the minimum operating specifications (in accordance with the Standards listed above for defined immunity to interference).

Council Directive 73/23/EEC
"Electrical Equipment Designed for Use within Certain Voltage Limits"

Applicable European Standards:
EN 60950
Safety on information technology equipment including electrical Business equipment

EN61010
Safety requirements for electrical equipment for measurement, control and laboratory use
Part 1 : General Requirements

If you use electrical equipment in installations and under ambient conditions requiring higher safety Standards, you must comply with the provisions as specified in the applicable regulations for installation in your country.

Weighing Instruments Used in Legal Metrology:
Council Directive 2009/23/EC "Non-Automatic Weighing Instruments"

For the respective Declaration of Type Conformity for weighing instruments that have been verified by Sartorius for use as legal measuring instruments and that have an EC Type-Approval Certificate, see page 33 or next page.

The legal basis allowing Sartorius to perform EC verification is constituted by the EC Council Directive No. 2009/23/EC on non-automatic weighing instruments that has been in effect since January 1 , 1993, in the Infernal Market as well as by the Certificate of Accreditation of the Sartorius Quality Management System issued by the Metrology Department of the Regional Administration Office of Lower Saxony, Germany ("Niedersächsisches Landesverwaltungsamt - Eichwesen",now MEN, Mess- und Eichwesen Niedersachsen) on February 15,1993.

For information on the CE mark on Sartorius equipment and legal regulations currently applicable in your country, and to obtain the names of the persons to contact, please ask your local Sartorius office, dealer or service center.

CE Declaration of Type Conformity to Directive No. 2009/23/EC

This declaration is valid for non-automatic electromechanical weighing instruments for use in legal metrology. These weighing instruments accepted for legal metrological verification have an EC Type-Approval Certificate. The model(s) concerned is (are) listed below along with the respective type, accuracy class, and EC Type-Approval Certificate number:

Model	Weighing instrument type	Accuracy Class	EC Type Approval No.	In Conjunction with Test Certificates				
				Type		Certificate No.		
IS.....-.0CE*	iso-TEST	(II) oder (III)	D97-09-018	HA BD BD BF BF BF HC BF		D09-95.18 D09-96.30 D09-96.30 D09-96.30		
IS.....-.XCE*	iso-TEST	(II) oder (III)	D97-09-018	BD BF BF BF HC BF		D09-96.30 D09-96.30 D09-96.30		
IS.....-.0CE**	SARTOCOWAT	(II) oder (III)	T7899	HA BD BD BF BF BF HC BF	+ TA	D09-95.18 D09-96.30 D09-96.30 D09-96.30	+ D09-11.02	
IS.....-.XCE**	SARTOCOWAT	(II) oder (III)	T7899	BD BF BF BF HC BF	+ TA	D09-96.30 D09-96.30 D09-96.30	+ D09-11.02	

*) when connected to indicating and operator terminal isi10, isi20, isi30, TN (CIS2. CISL2, CIS3, CISL3), TN-X (CIXS3), TN-Pro (CISPRO), YAC01LA, YAC01LP, YAC01FC, YAC02FC or computer (CE) and software Sartorius Win Scale (D09-99.15)

**) when connected to indicating and operator terminal TA (CAIS1, CAISL1, CAIS2, CAISL2, CAIS3, CAISL3)

SARTORIUS AG declares that its weighing instrument types comply with the requirements of the Council Directive on non-automatic weighing instruments, no. 2009/23/EC of 23 April 2009; the associated European Standard "Metrological aspects of non-automatic weighing instruments," No. EN 45501; the most recently amended versions of the national laws and decrees concerning legal metrology and verification in the Member States of the European Union, the EU, and the Signatories of the Agreement on the European Economic Area, which have adopted this Council Directive into their national laws; and with the requirements stipulated on the Type-Approval Certificate for verification.
This Declaration of Type Conformity is valid only if the ID label on the weighing instrument has the CE mark of conformity and the green metrology sticker with the letter "M" stamped on it (the two-digit number in large print stands for the year in which the mark was affixed):

Example (date/year and number of the notified body may vary):

If these marks are not on the ID label, this Declaration of Type Conformity is not valid. Validity can be obtained, for example, by submitting the weighing instrument for final processing by an authorized representative of SARTORIUS AG. The period of validity of this Declaration of Type Conformity shall expire upon any tampering with, repair or modification of this weighing instrument or, in some Member States, on the date of expiration. This declaration applies only to the weighing instrument without peripheral devices.
The operator of this weighing instrument shall be responsible for obtaining an authorized renewal of the verification, such as subsequent or periodic verification, of the weighing instrument for use as a legal measuring instrument.

Sartorius AG
37070 Goettingen, Germany
Signed in Goettingen on 03 May 2011

i. V.

Dr. Reinhard Baumfalk
(Vice President R&D)

i. V.

J. Rehwald
(Head of the Production Department
Mechatronics / Weighing Technology Division)

“EC Verification – A Service Offered by Sartorius

Our service technicians authorized to perform the verification* of your weighing Instruments which are acceptable for legal metrological verification can inspect and verify the metrological specifications at the place of installation within the Member States of the European Union and the Signatories of the European Economic Area.

"New Installation" Service

Initial verification is covered in our "New Installation" service package. In addition to initial verification, this package provides you with a series of important Services which will guarantee you optimal results in working with your weighing instrument:
– Installation
– Startup
– Inspection
–Training
– Initial verification

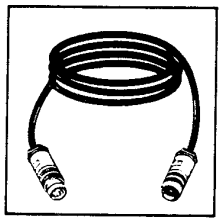
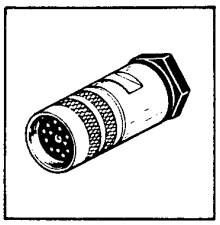
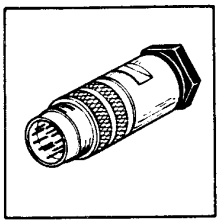
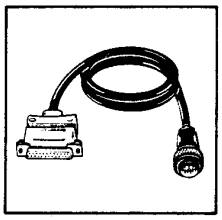
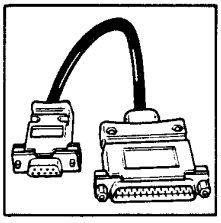
If you would like Sartorius to perform initial verification of your weighing instrument, contact an authorized service representative.

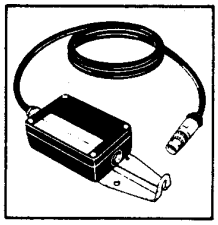
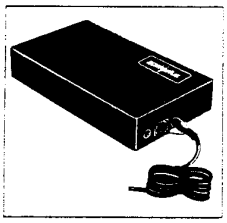
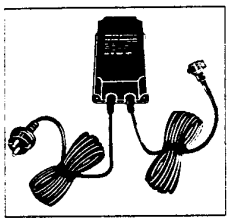
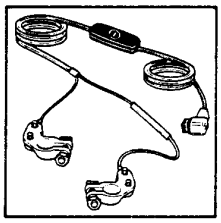
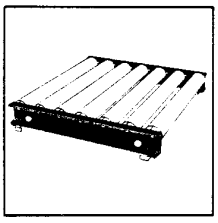
Subsequent Verifications within the European Countries

The validity of the verification will become void in accordance with the national regulations of the country in which the weighing instrument is used. For Information on verification and legal regulations currently applicable in your country, and to obtain the names of the persons to contact, please contact your local Sartorius office, dealer or service center as indicated on the following page.

* = in accordance with accreditation received by Sartorius

Accessories (Options)

	Order No.:
Data interface port with 3-m cable (IP67, RS-485) and 1 2-pin round connector (electrically isolated)	YD0511S
Data interface port with 3-m cable (IP67, RS-232C/ RS 423) and 1 2-pin round connector (electrically isolated)	YD0521S
Data interface port with 6-m cable (IP67, RS-485) and 1 2-pin round connector (electrically isolated)	YD0531S
 Extension cable to connect an *isi* terminal to a weighing platform; 1 2-pin round connector to] 2-contact round connector (IP65, 6 m)	YCC 01 -ISM6
 Round female connector, IP65, type C091 D, 1 2-contact, Amphenol, for configuring own cable	69 QC0011
 Round male connector, IP65, type C091 D, 1 2-pin, Amphenol, for configuring own cable	69 QC0010
 Adapter cable, from round connector to PC, 25-pin D-Submini, 0.2 m long (YD0521S required)	YCC 01 -0017D2
 PC ddapter cable, 25-pin D-Submini / 9-contact D-Submini, 0.25 m long (YDO 52 IS and YCC 01 -0017D2 required)	6965619

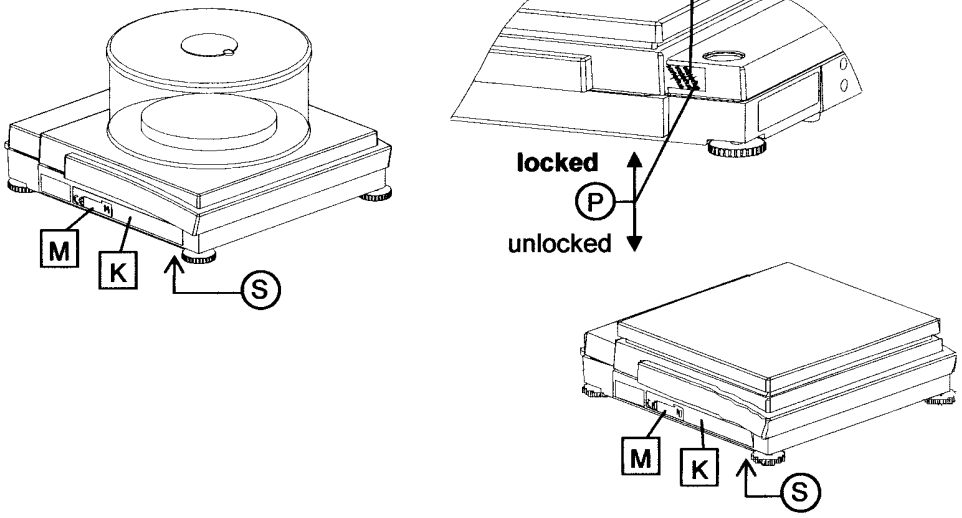
	Special menu access locking device, IP65 (for legal metrology); for external positioning of the menu access lock on weighing platforms built into Systems. If this device is used, a tag plate for ID labels is not required.	YAS 02 IS
	Upgrade kit for DC power supply to the weighing platform (without using an external AC adapter or power supply) IP67 cable gland (to be installed by an authorized service technician only)	YAS 03 IS
	External rechargeable battery pack; hours of Operation approx. 28 (YAS031S required)	YRB 06 Z
	IP65 AC adapter; 3-m primary cable, 1 .5-m secondary cable; to be installed by an authorized service technician only (YAS031S required) – for 220 V – for 11O V	 6971899 6971500
	Adapter cable for connecting the weighing platform to a 1 2-V car battery or to a separate 12-V power source using the terminal leads; cable length: 3.7 long (~ 12 ft.); with integrated switch and fuse, reverse battery polarity protection; to be installed using the YAS031S by an authorized Service technician only	YRB 01 IS
	Roller conveyor, with 7 rollers	YRT 01 F-OO01
	Calibration weight, 1 · 10 kg, accuracy class F1 (use as a test weight only for weighing platforms verified as legal measuring instruments)	YCW 7138
	Configuration diskette for the IS weighing platform (PC, DOS), without interface cable	YAD 01 IS

For ordering customized cables and accessories, contact your local Sartorius office or dealer

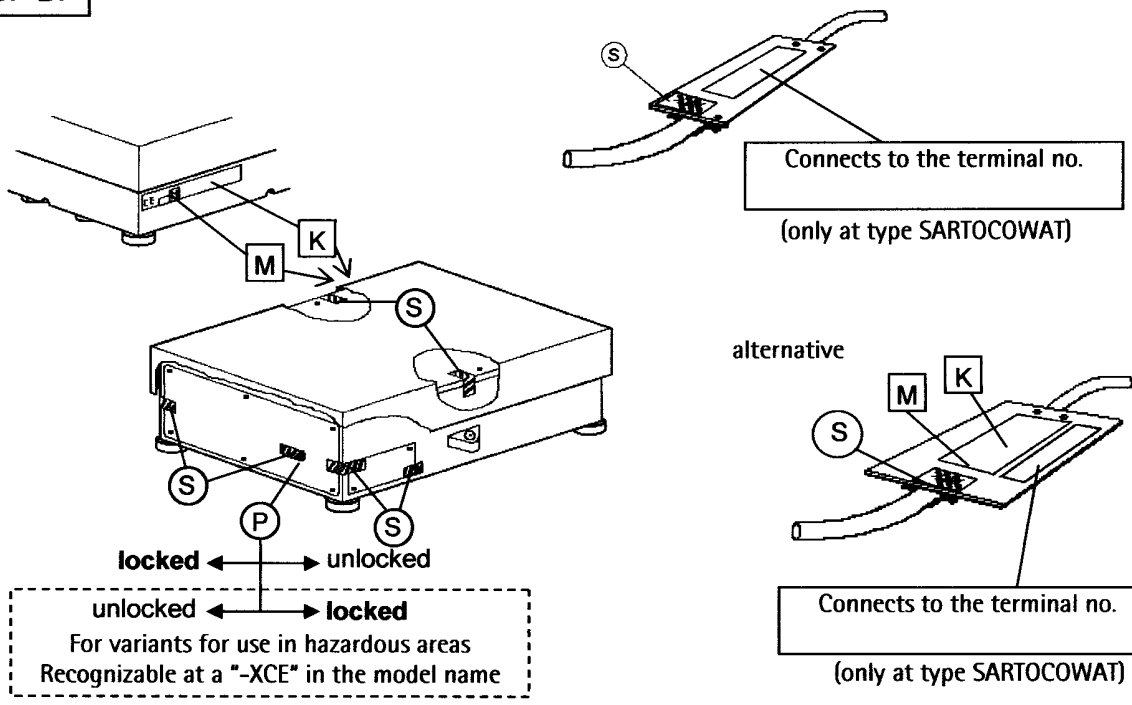
Plates and Markings – IS... -.CE + Terminals

Note: Protective seals of the indicating and operator terminal see belonging manuals.

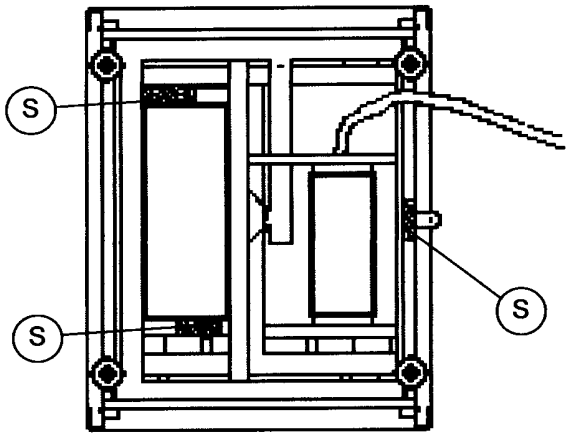
Type BD BF

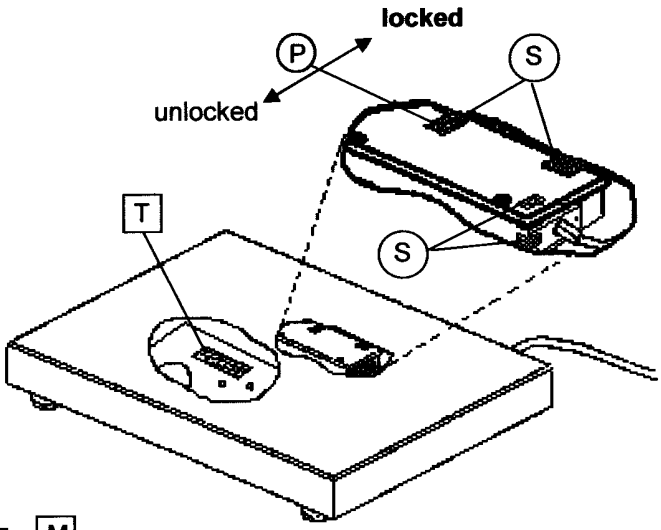


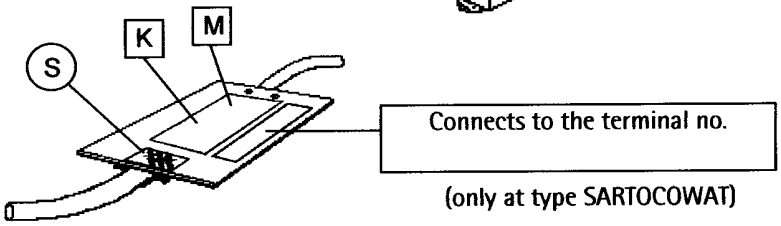
Type BF BF



Type HA BD





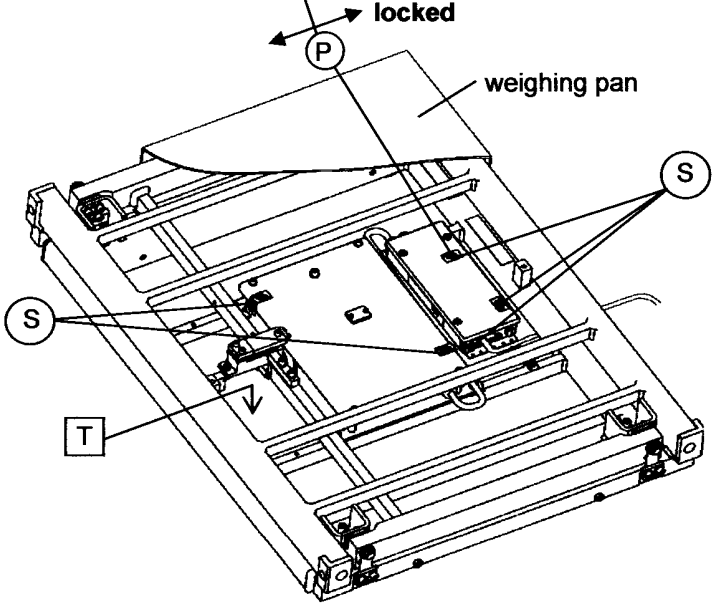


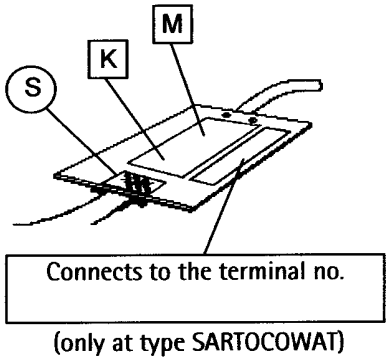
(only at type SARTOCOWAT)

Type HC BF

For variants for use in hazardous areas
Recognizable at a "-XCE" in the model name

locked ◄——► unlocked





(only at type SARTOCOWAT)

K Descriptive plate with CE-conformity mark

M Mark for EC verification (green metrology sticker)

S Protective seal

T Plate with model designation

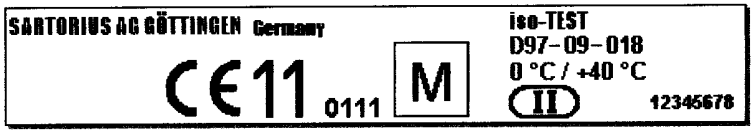
P Menu access switch

Type of weighing instrument: iso-TEST Types of weighing modules: BD BF, BF BF, HA BD, HC BF
EC Type-approval D97-09-018 + Test certificates D09-96.30, D09-95.18
or
Type of weighing instrument: SARTOCOWAT Types of weighing modules: BD BF, BF BF, HA BD, HC BF
EC Type-approval T7899 + Test certificates D09-96.30, D09-95.18

PPIS030511e

In connection with terminals types isi10, isi20, isi30, TN (CIS2, CISL2, CIS3, CISL3), TN-X (CIXS3), TN-Pro (CISPRO), YAC01LA, YAC01LP, YAC01FC, YAC02FC or computer (CE) and software Sartorius Win Scale (D09-99.15)

Example of descriptive plate of the already verified weighing instrument [K]

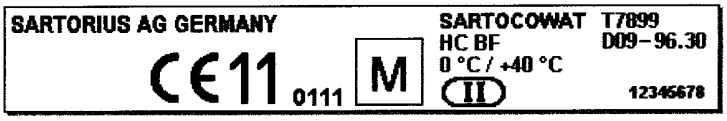


Example of plate with model designation - weighing module [T]

Example of plate with model designation - terminal [T]

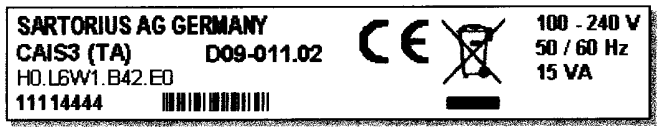
In connection with terminal type TA (CAIS1, CAISL1, CAIS2, CAISL2, CAIS3, CAISL3)

Example of descriptive plate of the already verified weighing instrument [K]



Example of plate with model designation - weighing module [T]

Example of plate with model designation - terminal [T]



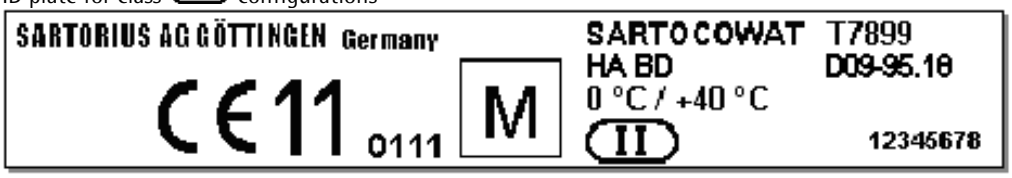
Type of weighing instrument: iso-TEST Types of weighing modules: BD BF, BF BF, HA BD, HC BF
EC Type-approval D97-09-018 + Test certificates D09-96.30, D09-95.18
or
Type of weighing instrument: SARTOCOWAT Types of weighing modules: BD BF, BF BF, HA BD, HC BF
PPIS030511e EC Type-approval T7899 + Test certificates D09-96.30, D09-95.18

Selecting and Attaching ID Plates

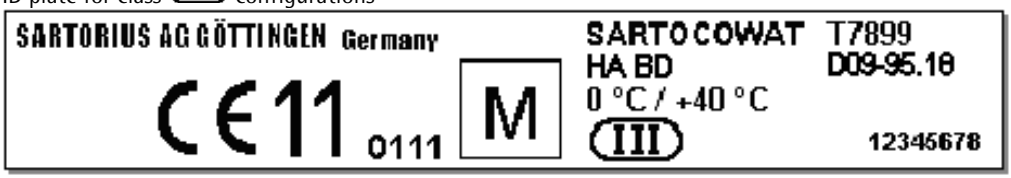
The ID plate is to be selected and attached according to the specification block (configuration of scales) and the display and control unit (terminal). For details of how to position the ID plate on the scales or tag holder, refer to the instructions in "Plates and Markings".

If display and control units (terminals) of
type **TA**, models **CAIS1, CAISL1, CAIS2, CAISL2, CAIS3, CAISL3** are being used,
EC Type Approval Certificate No. **T7899**, type **SARTOCOWAT** is applicable.

ID plate for class (II) configurations

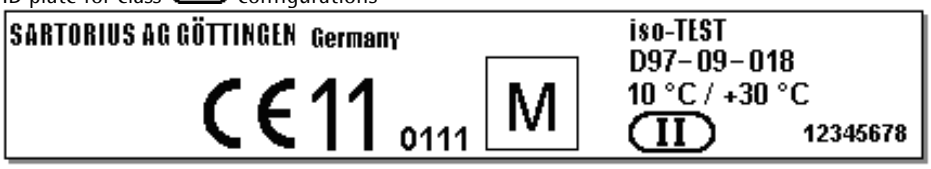


ID plate for class (III) configurations

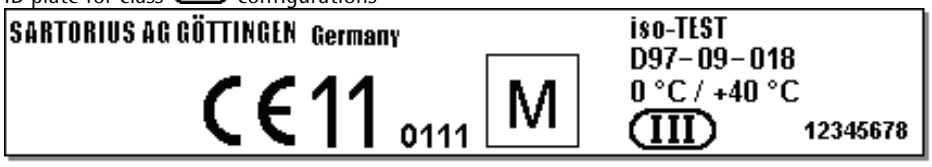


If display and control units (terminals) of
type **TN**, models **CIS2, CSL2, CIS3, CISL3, type TN-X, model CISX3**,
type **TN-Pro**, model **Combics Pro**,
type **isi10, isi20, isi30**, type **YAC01LA**, type **YAC01LP**, type **YAC01FC**, type **YAC02FC**,
PC with **Sartorius Win Scale** software
EC Type Approval Certificate No. **D97-09-018**, type **iso-TEST** is applicable.

ID plate for class (II) configurations



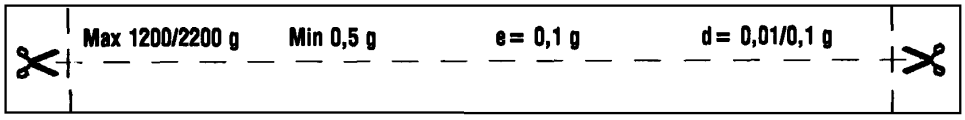
ID plate for class (III) configurations

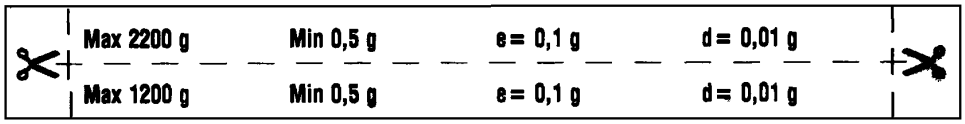


Select and Attach Plate Containing Metrological Data

Plates with the metrological data Max, Min e and d must also be attached near to the display.
Select the plate with the Max, Min e and d metrological data that is suitable for the configuration, cut along the dotted lines and attach above the display.
The transparent protective film must be stuck over the plate containing the metrological data. The tamper-proof plate containing the metrological data does **not** need verification seals.

Examples of attached plates containing metrological data for the possible configurations.





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